



UNIVERSITY
OF TAMPERE



SCHOOL OF MANAGEMENT
*THE FINAL DECISION –
ETHICAL VIEWS ON FINAL DISPOSAL IN
FINLAND AND SWEDEN*

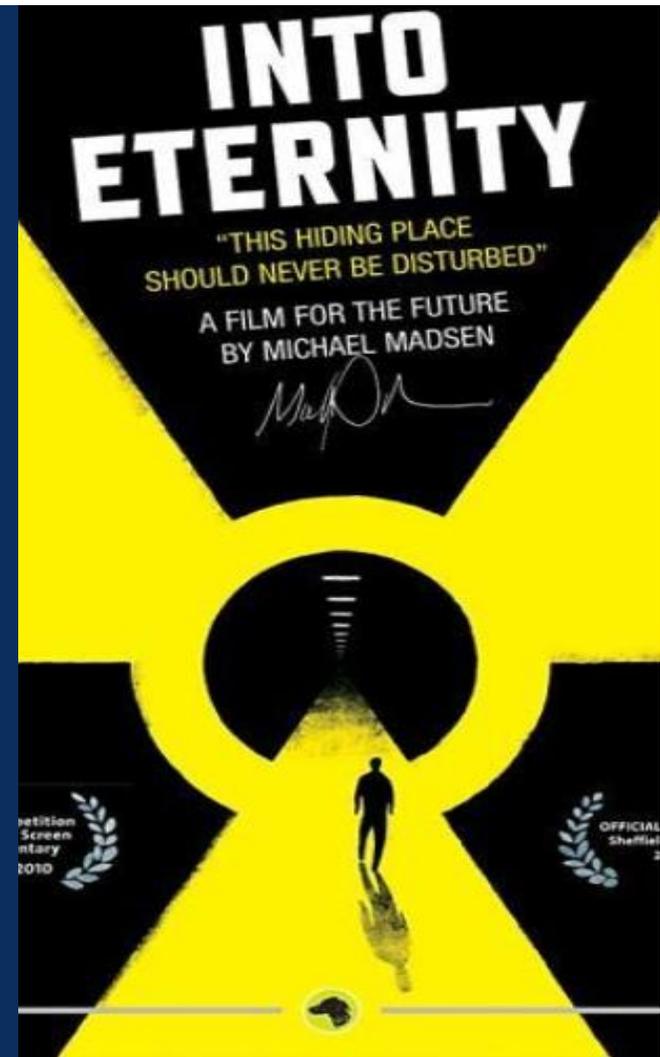
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INTRODUCTION

- Research questions
 - What sort of ethical issues are discussed in the Swedish and Finnish print media?
 - Which actors are taking part in the discussion?
 - Are there / What are the differences between Finnish and Swedish discussion?
- Theoretical framework: agenda-setting
- Collaboration between Universities of Tampere and Jyväskylä
- The project is funded by the KYT2018 research program.
- Work in progress



INTRODUCTION

The regimes remain quite stable and changes in regimes are slow (Berkhout 2002.)

Ethical discussion is one important part of the regime, since ethical principles and values can be seen as normative claims (Bråkenhielm 2015, 397) and discussions of what makes an action morally valuable (Frostensson, 2008, 14).



THE FORERUNNERS – FINLAND AND SWEDEN

Similarities:

- KBS-3 final disposal concept

Differences:

- Nuclear power policy
 - Nuclear new build in Finland
- Nuclear waste regime
 - E.g. Swedish National Council for Nuclear Waste, SKB Social Science Research Programme 2004–2010 vs. KYT2018 Program
- Licensing process
 - Two parallel processes in Sweden >> complexity,
 - DiP of 2001 in Finland >> strong socio – technical divide



THE FORERUNNERS – FINLAND AND SWEDEN

Research period: 1 January 2008 – 31 December 2015

SKB, Sweden

- Site selection in 2009
- Two applications submitted in March 2011.
- The review processes are on-going.

Posiva, Finland

- The pre-license application in 2009
- The application submitted in December 2012.
- Government granted the construction license in November 2015.



ETHICS AND NUCLEAR WASTE

- Environmental awareness since the 1970s has highlighted ethical considerations followed by environmental research and the sustainable development debate of the late 1980s.
- The new focus on geological disposal after ocean dumping was banned by an international convention in 1975 and the United States abandoned reprocessing of nuclear waste in 1977.
- In 1995 IAEA and NEA established basic ethical principles for nuclear waste management. (Andrén 2012, 34.)



ETHICS AND NUCLEAR WASTE – THE ETHICAL PRINCIPLE

The idea that each country and generation should assume responsibility for managing the nuclear waste it produces. (Andrén 2012, 34.)

- In Sweden since the mid-1980s
- In Finland since the early / mid-1990s



ETHICS AND NUCLEAR WASTE – SOME EXAMPLES

Sweden

KASAM, 1987. Etik och kärnavfall, Rapport från ett seminarium om etiskt handlande under osäkerhet i Stockholm den 8–9 september 1987, mars 1988, SKN Rapport 28.

Nilsson A, 1999. Ansvar, rättvisa och trovärdighet – etiska dilemman kring kärnavfall, Rapport från alternativgruppen inom Nationellt MKB-forum, Miljödepartementet, Kommentus.

Finland

Posiva (1999) EIA Report incl. "ethical and ecological principles":

- 1) to protect human and nature,
- 2) to protect next generations,
- 3) to minimize harm for next generations,
- 4) the safety of the repository in operation phase,
- 5) to prevent wrong usage of nuclear material



PRINT MEDIA DATA GATHERING

1 JAN 2008 – 31 DEC 2015

Dagens Nyheter (DN):

- kärnavfall
- slutförvar
- svensk kärnbränslehantering

Aamulehti (AL):

- ydinjät\$
- ydinjät\$ and loppusijoitu\$
- posiva\$

Svenska Dagbladet (SvD):

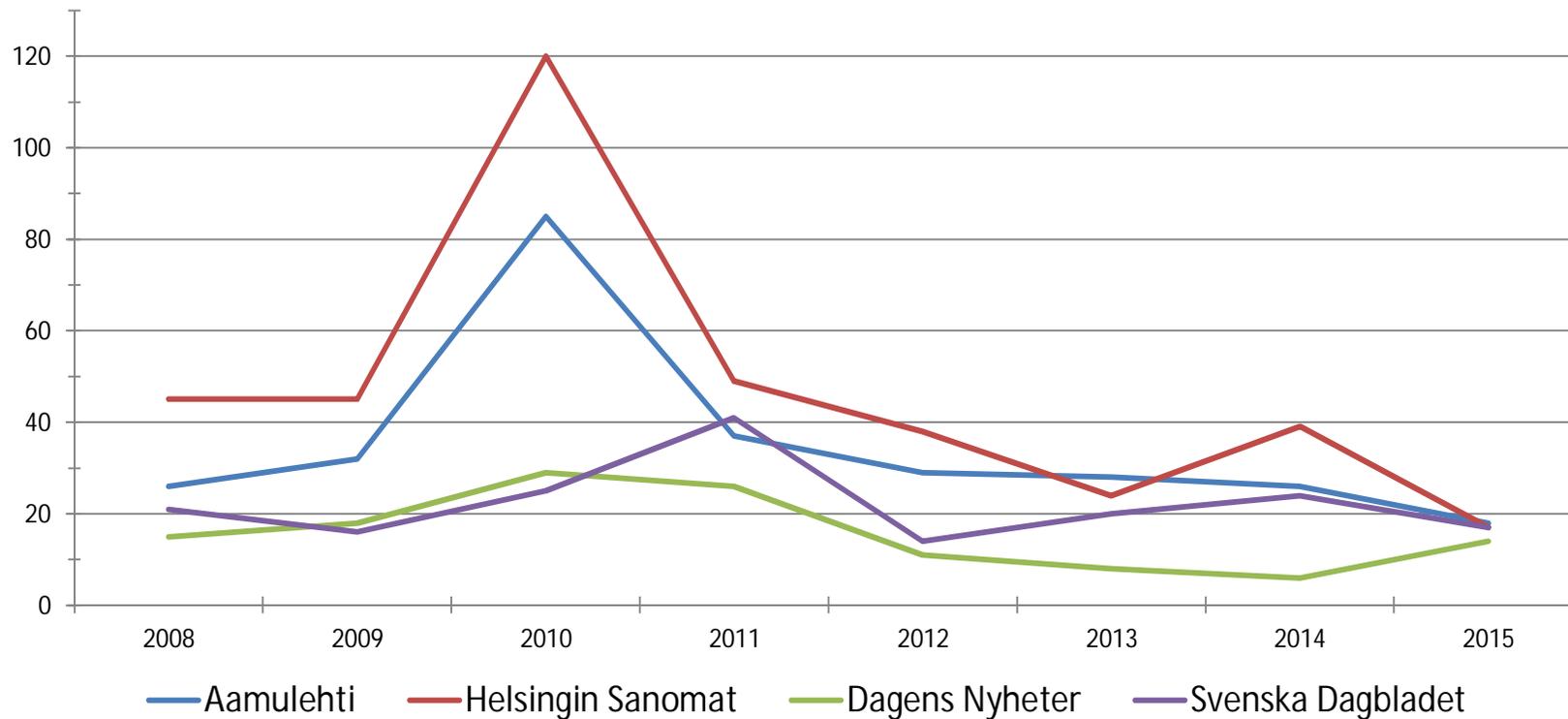
- kärnavfal*
- kärn* slutförvar*
- svensk kärnbränslehantering

Helsingin Sanomat (HS):

- ydinjät*
- ydinjät* AND loppusijoit*
- posiva*



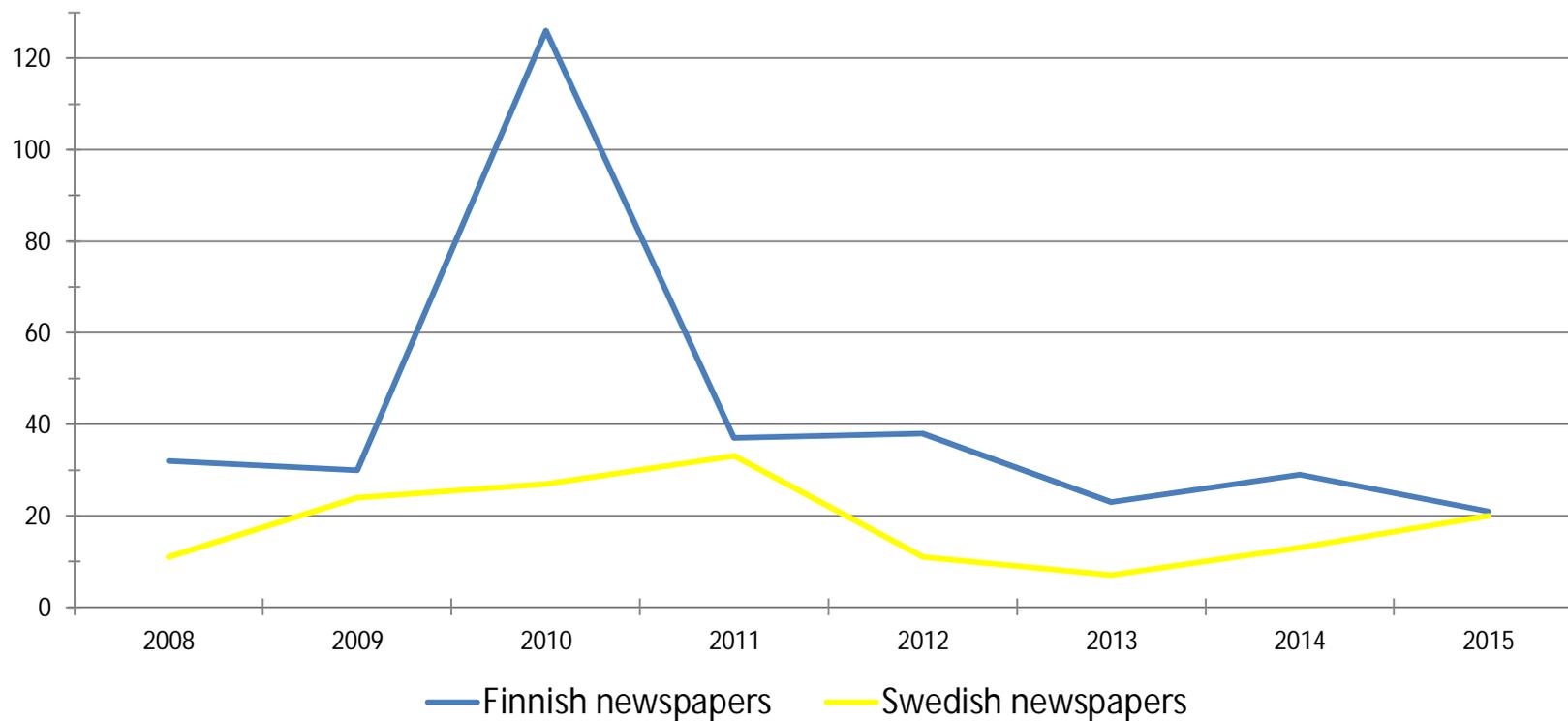
FIGURE 1. NUMBER OF ITEMS IN THE DATA CORPUS BY NEWSPAPER PER YEAR (N=963)



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FIGURE 2. NUMBER OF ITEMS RELEVANT TO THE ISSUE BY COUNTRY PER YEAR (n=482)



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TENTATIVE SHARE OF NEWS ITEMS AND LETTERS TO EDITOR INCL. ETHICAL ISSUE IN 2008–2015

In the Finnish data (AL+HS) about 26 % of items (60 out of 230 relevant items) incl. an ethical issue.

In the Swedish data (DN+SvD) about 40 % of items (43 out of 107 relevant items) incl. an ethical issue.



ETHICS AND NUCLEAR WASTE - THE CATEGORIES

Intergenerational justice:

Issues regarding long time span of disposal of nuclear waste, time perspective (knowledge and perceiving of knowledge), generations to come, responsibility of our generations towards generations to come, questions of national and corporate responsibility and retrievability

Distributional justice:

Issues regarding compensation and benefits, distribution of risk and safety,

Procedural justice:

Issues regarding how to evaluate knowledge and information, participation and procedure of decision making.



INTERGENERATIONAL JUSTICE:

- Records and knowledge – How the future generations can identify danger? How to preserve knowledge? How to safeguard continuity of knowledge?
- The solution might be the right one, but how to be sure? Difficulty to understand the long time frame
- We have been given the responsibility for nuclear waste
- Difficulty of decisionmaking
- Russian roulette with the future generations
- Retrievability
- Do have the right to store waste for future generations?
- Responsibility of the state after the closure of the repository



DISTRIBUTIONAL JUSTICE:

- Some get benefits (host communities) from the nuclear waste business, but others have to pay the bill
- How to safeguard safety for the future generations as many argue that final disposal doesn't work and it's not tested
- Demonstration of safety, How to ensure it?
- Use of natural resources (copper)
- Comparison of different sort of risks



PROCEDURAL JUSTICE:

- Social contract – trust in fair treatment
- 30 years long research will be tested in society
- Reliability of knowledge

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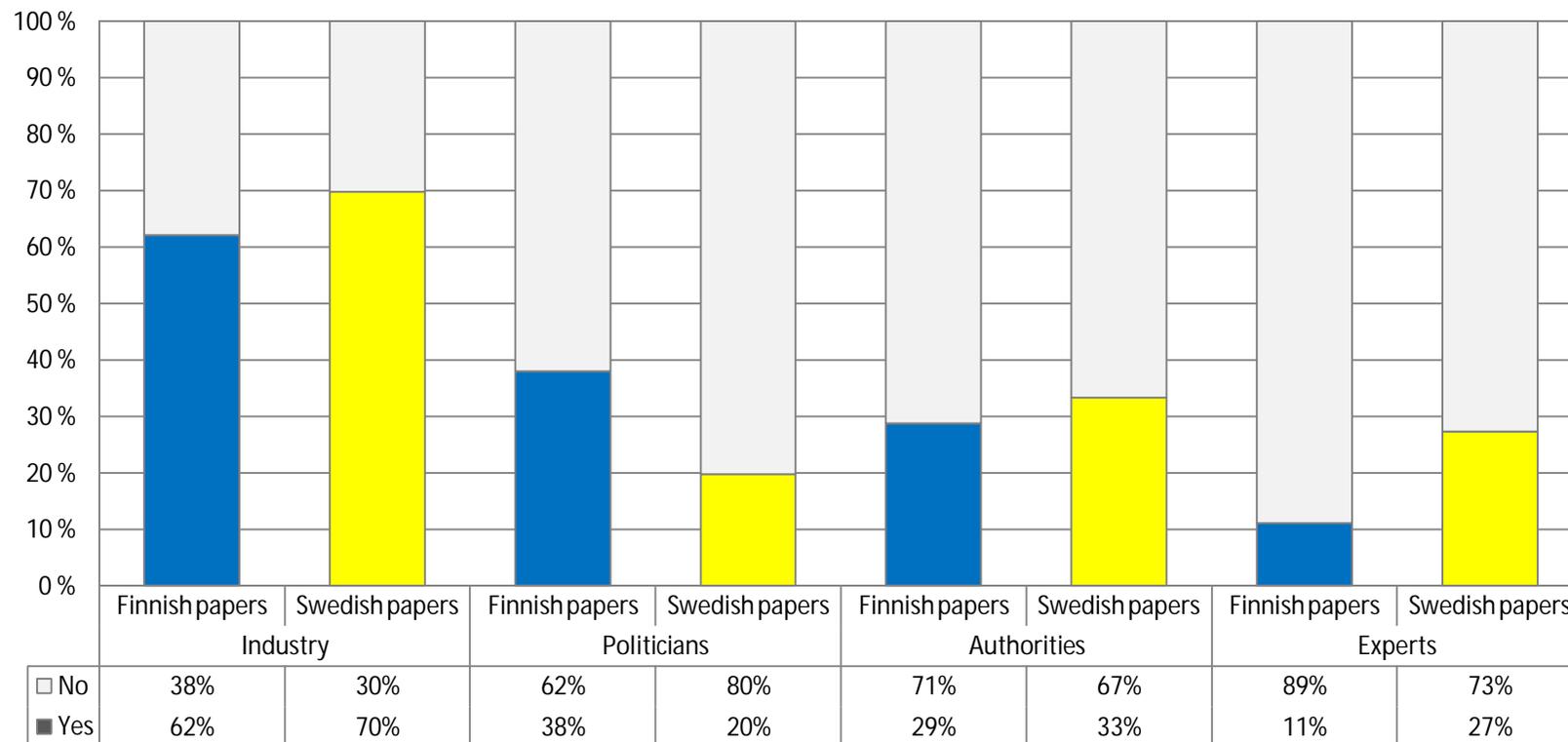


DIFFERENT SOCIETAL ACTOR GROUPS AS "SPEAKERS" IN THE PRINT MEDIA

- Eight actor groups were identified.
 - Industry (Posiva, SKB, power companies etc)
 - Politicians (MPs, MEPs, ministers etc)
 - Authorities (STUK, SSM etc)
 - Experts (KTH, VTT, NEA, Kärnavfallsrådet, universities, professors ect)
 - NGOs (Greenpeace, MKG, environmental movements in general)
 - Province and local representatives (majors, local councilors etc)
 - Public (individual citizens, the general public)
 - Other (such as Michael Madsen)



AN EXAMPLE: EXTENT WHICH VOICE IS GIVEN (YES/NO) TO CERTAIN ACTOR GROUPS IN NEWS ARTICLES RELEVANT TO THE ISSUE (%) BY COUNTRY (N=108 FIN / N=66 SWE) IN 2008-2014.



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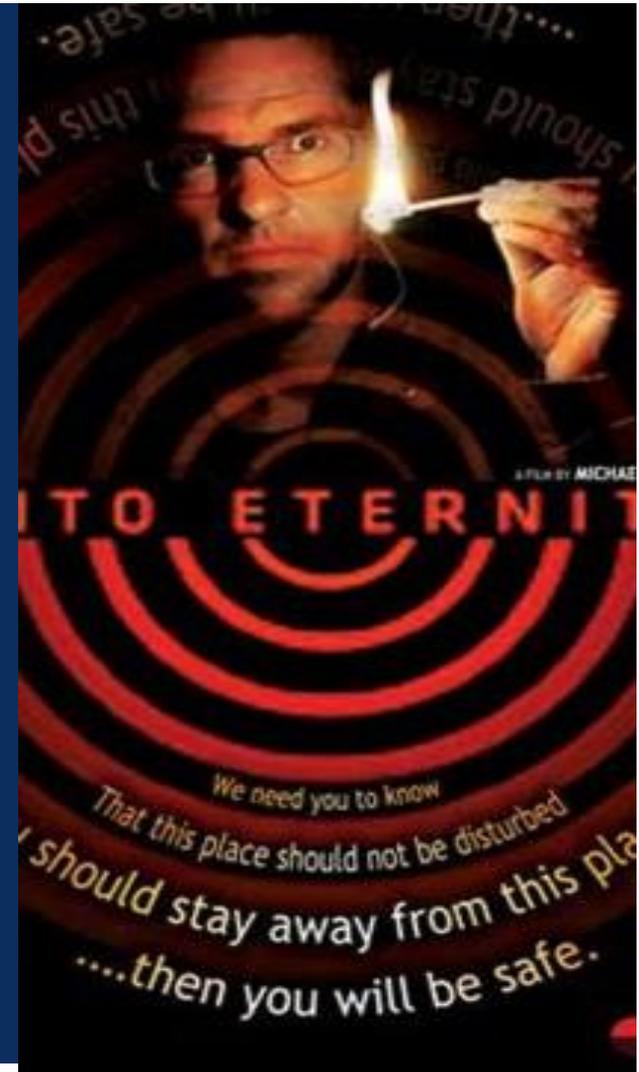


TENTATIVE REMARKS

- The Finnish print media debate was characterized by nuclear new build and Fennovoima vs. Posiva dispute regarding final disposal of SNF.
- The identified categories of "ethical speech" were intergenerational justice, distributional justice and procedural justice.
- An ethical issue can have two sides e.g.
 - - responsibility of current generation vs. responsibility of future generations to decide
- There seems to be a stronger focus on ethical issue in the Swedish nuclear waste regime.



THANK YOU
You can change the world
only if you know how it works.



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